

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A ~~[[T]]~~ teleoperated endoscopic capsule for diagnostic and therapeutic purposes inside a human body cavity, ~~characterised in that it comprises~~ comprising: a body with a plurality of locomotion modules placed on its surface, suitable for moving said body in said cavity, a source of energy inside said body, a microcontroller in said body to actuate said locomotion modules on the basis of commands teletransmitted by an operator, a video camera for capturing images, controlled by said microcontroller, a transceiver system for receiving commands teletransmitted by the operator and for transmitting the images captured via said video camera and wherein each of said locomotion modules comprises a leg brought into contact with a wall of said cavity for transmitting a locomotion force and for moving points of contact of said leg to produce locomotion, and wherein the leg further comprises grasping means for increasing adherence of contact against said wall including a plurality of microhooks aligned along an enlarged end of said leg, said microhooks being turned towards a rear end of said body.

2. (Currently Amended) An ~~[[E]]~~ endoscopic capsule according to claim 1, wherein ~~each of said locomotion modules comprises a leg suitable for being brought into contact with the wall of said cavity for transmitting the locomotion force and moving the points of contact with it to produce locomotion,~~ said leg has ~~has~~ at least two degrees of freedom, and means for actuating the movements of said leg controlled by said microcontroller.

3. (Currently Amended) An ~~[[E]]~~ endoscopic capsule according to claim 1, wherein said body has a front end and ~~[[a]]~~ the rear end spaced longitudinally, and said leg has at least one degree of freedom active in ~~[[the]]~~ a longitudinal direction of said body controlled by said actuator means.

4. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 3, wherein said leg has at least one passive degree of freedom to adapt ~~[[the]]~~ a force of contact against said wall to ~~[[the]]~~ deformability of ~~the same~~ said wall.

5. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, wherein said leg is a substantially rod-shaped element in two portions, ~~end-to-end~~ with ends thereof connected by a knee portion with increased flexibility, ~~and comprises grasping means for increasing adherence of the contact against said wall.~~

6. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, wherein said leg is a substantially rod-shaped element with a plurality of sections with increased flexibility along its length, ~~it, and comprises grasping means to increase adherence of the contact with the wall.~~

7. (Cancelled)

8. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1 ~~7~~, wherein said microhooks ~~also~~ extend along one edge of said leg.

9. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim ~~[[1]]~~ 5, wherein said knee ~~portions~~ portion with increased flexibility ~~are~~ is made by material removal.

10. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim ~~[[1]]~~ 5, wherein said knee ~~portions~~ portion with increased flexibility ~~comprise~~ comprises end-of-stroke stops to limit ~~the~~ angular movement of said knee portion ~~in both directions.~~

11. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, wherein said legs leg ~~[[arc]]~~ is made ~~[[in]]~~ of shape memory alloy (SMA).

12. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, ~~wherein said~~
~~further comprising an~~ actuator means ~~comprise having~~ a pair of wires ~~[[in]] made of~~ shape
memory alloy (SMA) connected to said leg and acting in opposition to move ~~[[it]] said leg~~
angularly around an axis perpendicular to ~~[[the]] a~~ longitudinal direction of said body, said wires
being selectively fed with an electrical current under the control of said microcontroller.

13. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim ~~[[1]] 12~~,
wherein each locomotion module comprises a support housed longitudinally on said body, ~~said~~
~~support having a pulley located~~ at one end of said support ~~a pulley being provided, with and an~~
axis perpendicular to ~~the a~~ longitudinal direction of said body, said leg extending radially from
said pulley, said SMA wires being connected to said pulley at diametrically opposite ~~[[parts]]~~
~~ends~~ thereof and to electrical contacts ~~provided at the opposite end [[of]] on~~ said support.

14. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, wherein said
locomotion modules are placed one alongside the other on said body ~~in such a way that the so~~
corresponding legs are located alternatively on ~~the a~~ side of ~~the a~~ front end, and on a of the rear
~~end one of~~ said body.

15. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, wherein
there are at least six of said locomotion modules ~~are at least six~~.

16. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, ~~wherein said~~
~~further comprising~~ actuator means ~~are suitable~~ for transmitting angular movements of said leg
between a rest position~~[[,]]~~ wherein ~~[[it]] the leg~~ is placed longitudinally along said body, and
~~[[a]] another~~ position of maximum radial extension.

17. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 16, wherein in
said rest position, said leg is housed in ~~[[said]] a~~ support of one of said locomotion modules.

18. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 16, wherein the position of maximum radial extension of said leg is at 120° in relation to said rest position.

19. (Currently Amended) An ~~[[E]]~~endoscopic capsule according to claim 1, wherein a biodegradable coating is provided on said body for containing the legs during ~~[[the]]~~ a swallowing process.

20. (Currently Amended) A ~~[[S]]~~system for diagnostic and therapeutic endoscopy inside a human body cavity, characterised in that it comprises an endoscopic capsule according to claim 1 and an external control interface for transmitting to said capsule the commands for its locomotion in said cavity and for the reception and processing of the obtained data.